

**AMENDED ADDENDUM TO THE AGREEMENT
BETWEEN THE CITY OF LAKEWOOD, OHIO
AND
THE FIRM OF CT CONSULTANTS, INC.**

1. This Addendum to the Agreement between the City of Lakewood, Ohio and the Firm of CT Consultants, Inc., dated January 12, 2015 ("Agreement"), is entered into on this 21st day of August, 2018 pursuant to Article IV, Specifically Authorized Services of the Agreement.
2. The City of Lakewood and CT Consultants, Inc wish to include additional services in the Agreement by way of this Addendum for **Professional Engineering Services – Integrated Wet Weather Improvement Plan – Hi-Rate Treatment (HRT) FINAL DESIGN** and satisfy requirements by the Ohio EPA by March, 2018 in response to the NPDES 3PE00004*PD Permit Requirements as proposed in CT Consultant Inc.'s proposal dated October 31, 2016 in an amount not to exceed One Million, Two Hundred Thirty-Three Thousand, Five Hundred Seventy Five Dollars and no/xx (\$1,233,575.00).
3. **2018 AMENDMENT** to perform design & engineering services, and prepare a bid package for work required to provide adequate water supply to the new HRT as proposed in CT Consultant Inc.'s proposal dated August 10, 2018 in an amount not to exceed Twenty-Two Thousand, Five Hundred Dollars and no/xx (\$22,500.00) to be absorbed in original Addendum price both attached hereto as "Exhibit A".

IN WITNESS HEREOF, the parties hereto have affixed their hands and seals at the City of Lakewood, Ohio this 21st day of August, 2018.

CITY OF LAKEWOOD, OHIO

Witnesses:



By:

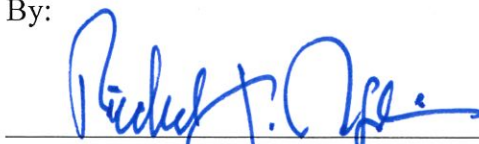


Michael P. Summers, Mayor

CT CONSULTANTS, INC.

By:





Richard J. Iafelice, Vice President

EXHIBIT A



October 31, 2016

Mr. Mark Papke, P.E., CPESC
City Engineer
City of Lakewood
12650 Detroit Avenue
Lakewood, Ohio 44107

**Re: *Proposal for Engineering Services
For High Rate Treatment Facility
Lakewood WWTP***

Dear Mr. Papke:

CT Consultants, Inc. is pleased to submit this proposal for the referenced project. The following background is provided which was used in the preparation of this proposal.

CT Consultants has completed the basis of design with the assistance of the plant superintendent Bill Crute. We have a clear understanding of the desired engineering services for the design and installation for the high rate treatment facility.

The City wishes to proceed with detailed design work for the project for which CT Consultants proposes engineering services follows:

I. SUMMARY OF WORK

The following improvements have been defined through preliminary study and contract documents will be prepared accordingly.

HIGH RATE TREATMENT FACILITY IMPROVEMENTS

- A. Design a high rate treatment (HRT) facility adjacent and to the east of the existing headworks of the Lakewood WWTP. The facility will utilize an ActiFlo ballasted flocculation process or equivalent process approved by the city and will be sized to treat a maximum of 35 mgd. No biological treatment component is anticipated at this time but the design will incorporate provisions for future conversion to BioActiflo.
- B. The new HRT facility will include UV disinfection as part of the process.
- C. The existing secondary treatment UV disinfection components will be upgraded concurrent with the HRT construction. Modifications required to existing tankage to accommodate the new UV units will be included.



- D. The existing inverted siphon pipes have insufficient capacity for 65 mgd, therefore two additional inverted siphons from the HRT to the outfall tunnel will be constructed to achieve conveyance capacity of 65 mgd. This will require expanding the outfall tunnel head chamber to accommodate two additional pipes.
- E. The HRT construction and associated inverted siphon work are anticipated to require in-river work which will trigger permitting from the US Army Corps of Engineers and the Ohio EPA.
- F. The HRT facility will require enclosure of mechanical and electrical equipment as well as chemical storage rooms. The wet stream facilities are anticipated to be open air.
- G. The HRT Facility will require preliminary treatment in the form of screening and grit removal. The screening facility will be enclosed similar to the existing facility.
- H. Instrumentation and controls for the HRT and associated improvements will be incorporated into the Lakewood WWTP SCADA system with additional PLC's as required.
- I. Solids removal from the HRT facility and handling within the Lakewood WWTP.
- J. Site work to improve access and to facilitate chemical deliveries will be required.
- K. Necessary electrical power supply and standby power will be provided.

II. SCOPE OF SERVICES

Upon receipt of written authorization, we will proceed with the following scope of services:

Design Phase Tasks:

- A. Field investigations –
 - Prepare a topographic survey of the project area (see attached figure of the project area).
 - Through a subconsultant, perform wetland delineation, stream permitting, mussel surveys, and related environmental tasks to secure USACE and Ohio EPA permits (Davey Resources proposal attached).
 - Through a subconsultant, conduct geotechnical investigation of the HRT site, the inverted siphon corridor, and the outfall head chamber expansion including a slope stabilization investigation for anticipated work on the north side of the river.
- B. Prepare final Drawings and Specifications. Plans and specifications will indicate the scope, extent, and character of the work to be performed and furnished by Contractor. Specifications shall conform to the 50-division format of the Construction Specifications Institute.



The following plans and specification areas are identified:

- Selective demolition drawings for a portion of the existing primary treatment building.
- Selective demolition drawings for a portion of the existing outfall head chamber.
- Proposed new process equipment including mixers, clarifier equipment, pumps, piping, sand recovery, weirs, bar screen, grit equipment, UV disinfection equipment, solids recovery and conveyance, valves, and associated tanks and channels.
- Site improvements for drainage, access and maintenance of the HRT.
- Electrical power feeds and distribution, motor control, backup generation and integration into the WWTP power system.
- Control and instrumentation plans including SCADA interfacing.
- Exterior piping including inverted siphons and HRT emergency outfall.

Plans and Specifications will be prepared with the understanding there may be up to four (4) prime contracts. The bid documents will be prepared anticipating that the equipment procurement will be open (not sole sourced). Our fee includes time for the preparation of a PTI application.

- C. Attend design review meetings. We anticipate monthly meetings for a three (15) month period with drawing and specification review sets at 50% and 75% and 90% complete.
- D. Prepare an opinion of probable construction cost for each review set.
- E. Prepare and furnish bidding forms.
- F. Project Management - The above tasks include all project management tasks including QA/QC reviews and coordination and meetings with the City.
- G. Prepare and assist the City in securing permits from both the USACE and the Ohio EPA.

III. ADDITIONAL SERVICES

If authorized in writing, Engineer shall furnish or obtain Additional Services of the types listed below:

- A. Provide assistance in preparing funding applications and associated engineering services for developing any necessary agency directed supporting documentation such as general planning reports, environmental review information and clearinghouse coordination, loan amortization and payback, and rate studies.



- B. Provide services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified including, but not limited to, changes in size, complexity, City's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, drawings, specifications, or contract documents when such revisions are required by changes in laws and regulations enacted subsequent to the proposal or are due to any other causes beyond Engineer's control.
- C. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by City for the Work or a portion thereof.
- D. Assistance in connection with construction.
- E. Preparation of operation and maintenance.
- F. Public meeting attendance as may be requested.

IV. INFORMATION/SERVICES PROVIDED BY OTHERS

The City will provide information or services which may include, but are not necessarily limited to, the following:

- A. Provide CT with all criteria and full information as to the City's requirements for the project, including objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations.
- B. Furnish CT with other available information pertinent to the project including previous reports and other data that may be relied upon.
- C. Arrange for access to and make all provisions for CT to enter upon public and private property as required for CT to perform services under this proposal.
- D. Fees associated with all permits will be the responsibility of the City.



V. FEE ESTIMATE AND BILLING FOR BASIC SERVICES

Fees will be billed on a monthly basis based on actual hours expended and hourly rates. Invoices are considered payable within 30 days of date of invoice. Our hourly not to exceed fee for this project is \$1,233,575 broken into the following tasks.

Final Design	\$1,079,600
Environmental Permits	\$35,595
Mussel Survey and Relocation	\$8,030
Topographic Survey	10,550
Geotechnical Investigation and Design	\$85,000
Bidding Assistance	\$14,800

VI. SCHEDULE

We propose the following milestone dates to meet the permit requirements for the PTI application.

- | | |
|---|------------------|
| • Submit 50% complete contract documents for review | May 15, 2017 |
| • Submit 75% complete contract documents for review | October 1, 2017 |
| • Submit 90% complete contract documents for review | January 15, 2018 |
| • Submit final contract documents for PTI | March 1, 2018 |

Fees and terms stated herein are valid for sixty (60) days from the date of this proposal. We look forward to the opportunity to provide professional services to the City of Lakewood, Ohio and appreciate the opportunity to submit this proposal.

Respectfully submitted,

CT CONSULTANTS, INC.

Robert H. Greytak, P.E.
Principal

RHG/rhg

cc: Richard J. Iafelice, P.E., P.S., CT Consultants, Inc.

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October 30, 2016

Corporate Headquarters
1500 North Mantua Street
P.O. Box 5193
Kent, Ohio 44240-5193
330.673.5685
Toll Free 1.800.828.8312
Fax 330.673.0860

Robert H. Greytak, P.E., Principal
CT Consultants, Inc.
8150 Sterling Court
Mentor, OH 44060

RE: *Ecological Consulting Services*—Sewer Line installation in the Rocky River,
Lakewood, Cuyahoga County, Ohio

Dear Mr. Greytak:

Thank you for contacting Davey Resource Group, a division of The Davey Tree Expert Company, to provide you with this proposal for ecological consulting services associated with the proposed sewer line installation project. The project area is located within and adjacent to the Rocky River, just south of the terminus of W. Clifton Boulevard, extending south across the river, and adjacent to the wastewater treatment plant.

This proposal provides you with a scope of services for water resource consulting services in association with the proposed sewer line installation within and adjacent to the Rocky River. These services include a water resources delineation; wetland and stream assessments; agency site visits; and coordination with U.S. Army Corps of Engineers (USACE) and Ohio Environmental Protection Agency (EPA) to obtain authorization for impacts to water resources. This project may be authorized by USACE Nationwide Permit (NWP) 12 for utility line activities, but it will also be necessary to obtain separate authorization from Ohio EPA.

Davey Resource Group will work diligently on your behalf to obtain the appropriate authorization from USACE and Ohio EPA. The permitting process occurs in steps and outlined below are the action items that need to be performed to obtain permits.

WATER RESOURCE DELINEATION METHODOLOGY

A wetland scientist will lead the field team and ensure that the delineation work is performed in accordance with methodology outlined in the 1987 *US Army Corps of Engineers Wetlands Delineation Manual* and the *Northcentral and Northeast Regional Supplement*.

The wetlands and streams will be field marked with survey flagging. The location of each flag will be surveyed using a handheld GeoXH™ Trimble® GeoExplorer®. Davey Resource Group will collect all required field data to complete a water resources delineation report.

WATER RESOURCE DELINEATION MAPPING

The GeoExplorer® collected data will be post-processed using GPS data collected from an appropriate base station. This post-processed data will be used with AutoCAD® software to prepare the water resources delineation map.

WETLANDS ASSESSMENTS

The Ohio Rapid Assessment Methodology (ORAM) as developed by the Ohio EPA will be used to evaluate the quality of each wetland within the study area. This evaluation method ranks wetlands into three different categories. Category 1 wetlands are of the lowest ecological quality. Category 2 wetlands are moderate to high quality, but may still have some degraded features. Category 3 wetlands are of exceptional quality. Development of Category 3 wetlands, that is, impacts to Category 3 wetlands are extremely difficult as a public need for the project must be proven before impacts to high-quality wetlands will be authorized.

STREAM ASSESSMENTS

The Rocky River will need to be evaluated using the Ohio EPA Qualitative Habitat Evaluation Index (QHEI). The site visit with the Ohio EPA will include the verification of the stream evaluation.

WATER RESOURCE DELINEATION REPORT

A comprehensive water resource delineation report will be prepared according to USACE specifications and include data sheets, maps, plant community identifications, and site photographs.

JURISDICTIONAL DETERMINATION AND VERIFICATION OF WATER RESOURCES DELINEATION

After your review, Davey Resource Group will submit the water resources delineation report to USACE and attend a site review with USACE personnel. The site review will be for the purposes of verifying the water resources delineation and determining the jurisdictional status of the water resources. This task will also include updating the water resources boundaries and mapping if requested by USACE. We will coordinate with USACE to schedule a site visit.

USACE NATIONWIDE PERMIT 12 AND OHIO EPA DIRECTOR'S AUTHORIZATION

Because this portion of the Rocky River is listed as a salmonid stream, it will be necessary to coordinate with the Ohio EPA to obtain a authorization from the Director as this project does not qualify for the Ohio EPA 401 Water Quality Certification for NWP 12.

Davey Resource Group will complete the USACE application using the information you and your engineers provide.

The USACE application submittal package must be submitted to Ohio EPA along with a statement justifying how this project will not result in a degradation to the river. USACE and Ohio EPA require the following information be submitted with the completed permit application form:

- **Wetlands Delineation Report**
- **Water Resource Assessment Forms (ORAM and QHEI)** – The assessment forms are necessary for complete USACE and Ohio EPA applications.
- **Endangered Species Habitat Evaluation** – Using the U.S. Fish and Wildlife Service endangered species list, a review of the site will be done to evaluate potential habitat for endangered species. In addition, a request will be made to the Ohio Department of Natural Resources Division of Natural Areas and Preserves for a review of their database for endangered species and natural areas.
- **Desktop Literature Review for Historic Sites** – a review of the Ohio Historic Preservation Office database will be done to determine the potential for this project to impact a historic feature that is listed or eligible to be listed on the National Register of Historic Places.

- **Impact Analysis.** A site development plan will be needed which shows the proposed water resource impacts. Coordination with you and your engineer will be done to evaluate the proposed fill.

USACE NATIONWIDE PERMIT 12 AND OHIO EPA INDIVIDUAL SECTION 401 WATER QUALITY CERTIFICATION

The project area for the sewer line installation is located within an area that is ineligible by Ohio EPA to be authorized under a Nationwide Permit. As such, it is likely that this project will be permittable by USACE under NWP 13, but an individual Ohio EPA Section 401 Water Quality Certification (WQC) may be needed. The level of permitting will be determined following coordination with Ohio EPA. If it is determined that an individual WQC is necessary, Davey Resource Group will prepare a full Ohio EPA 401 WQC application.

Section 401 permits are the most time-intensive and expensive types of permits and can take over a year from the receipt of a complete application to receive approval. However, Davey Resource Group will work diligently to facilitate the process. Some overlap with the NWP permitting process occurs but additional evaluations are necessary for the Ohio EPA application. Outlined below are the action items that will need to be performed to obtain an Ohio EPA WQC for the project.

- **Alternative Plan Analysis.** The 401 permit application requires three alternative plans (Preferred Design, Minimal-Degradation Alternative, and Non-Degradation Alternative) showing different levels of water resource impacts. An analysis of these alternative plans needs to evaluate the economic, environmental, and social effects of the project. For each alternative, it is necessary to provide the following information: statement of project purpose and need; social and economic benefits of the project; construction costs; storm water management details and costs; environmental impacts; and other information about the project as appropriate. We will work closely with you and the city to review and prepare the data for each of the three required site layout alternatives.
- **Alternative Site Analysis.** An analysis of alternative locations for the proposed development must be included, and the ultimate reasons why this location for the stream crossing is the best choice, possibly including upland alternatives. These reasons may include physical constraints, environmental limitations, location shortcomings and/or benefits, economic restrictions, and/or other issues. We will work with you to evaluate the alternative site data based upon the specifics of your project.
- **Additional Agency Coordination.** Because this project requires work within the Rocky River, coordination with other agencies will be necessary. Specifically, it will be necessary to coordinate with U.S. Fish and Wildlife Service in reference to endangered species; and with Ohio Department of Natural Resources in reference to endangered species and about in-water work restrictions.
- **Additional Information.** Letters of support from local government leaders and/or other local stakeholders pursuant to safety, public health, welfare, and economics can be advantageous. Their involvement and support can make a large impact on the timeliness and response of the agencies' reviews of the permit applications.

- **Mitigation Identification and Plan Development.** A plan to mitigate for impacts to the Rocky River may be necessary for the Ohio EPA 401 permit application. To mitigate for impacts to the Rocky River and any potential wetland impacts, mitigation banks and/or the In-Lieu Fee Mitigation program that serve the project's watershed will be investigated. This fee proposal does not include costs to purchase mitigation bank credits and/or in-lieu fee credits.
- **Public Notice and Response to Public Comments.** An important step in the individual 401 permitting process is the issuance of public notice to solicit comments from the public. Davey Resource Group prepares the public notice for Ohio EPA. Questions and concerns raised during the public notice comment period must be addressed before the Ohio EPA issues the permit for the project. Because this portion of individual 401 permitting can be extremely time consuming, Davey Resource Group will work diligently with you and your engineer to prepare and provide responses to these comments to address any concerns raised from the public notice.

COORDINATION WITH AGENCIES

Once permit applications are submitted, Davey Resource Group will coordinate with the agencies and provide them with any requested additional information to ensure that the agencies have a complete application. To expedite the permit review, field or office meetings will be arranged as needed.

PRE-APPLICATION SITE VISITS AND MEETINGS.

If it is necessary to permit the project under an Ohio EPA individual permit, Davey Resource Group will host pre-application site visits with USACE and Ohio EPA to present an overview of the project and discussion of issues. Pre-application site visits are encouraged by the agencies and help to address concerns early in the permitting process. If these meetings are done as site visits, Davey Resource Group will encourage the agencies to combine verification of the water resource delineation and assessments with the pre-application review.

MATERIALS REQUIRED

Davey Resource Group requests that a copy of the project area in AutoCAD® format be furnished prior to fieldwork. If electronic drawings are unavailable, please forward a tax map or other suitable location map with property boundaries clearly marked. These maps should be sufficient to conduct fieldwork; however, Davey Resource Group requests an electronic survey drawing be sent when it becomes available to ensure all critical features are accurately mapped and calculated.

Following completion of the delineation map, we request a copy of the site plan with associated water resource impacts to be included with the application.

TIME SCHEDULE

The delineation fieldwork will be conducted within two weeks of receiving authorization to proceed and receipt of the appropriate base maps and/or when conditions are appropriate. The water resource delineation map will be delivered within a week of completing the fieldwork and the water resources delineation report will follow within two weeks of fieldwork. The delineation report and mapping will be submitted to USACE immediately upon your authorization.

Davey Resource Group will begin preparing the support documents to the application packages upon authorization of this portion of the proposal. Approval from USACE will take approximately two to six months, once the complete permit application is submitted to the USACE.

Robert H. Greytak, P.E.
CT Consultants, Inc.
October 30, 2016
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FEES

The delineation fieldwork, mapping and reporting will be completed for a fixed fee of \$2,910. The USACE field verification site visit and report changes will be performed for a fixed fee of \$685.

If it is possible to obtain a USACE Nationwide Permit in combination with the Ohio EPA Director's authorization, this work will be performed for a fee not to exceed \$7,000. These fees are assessed on a time and materials basis, using rates of \$75 – 125/hour.

If it is necessary to obtain an USACE Nationwide Permit in combination with the Ohio EPA individual WQC, this work will be performed for a fee not to exceed \$25,000. Fees are assessed on a time and materials basis, using rates of \$75 – 125/hour.

Ohio EPA application fees are not included in this cost proposal.

It is anticipated that if required, mitigation will be satisfied through the purchase of mitigation credits at a mitigation bank or from an In-Lieu Fee Mitigation program. The costs to purchase mitigation bank credits, pay In-Lieu Fees, or, if necessary, the development of conceptual mitigation plans and implementation and/or monitoring of mitigation sites are not included in this cost proposal.

TERMS AND CONDITIONS

Cultural resource and endangered species studies are not included in this scope of services. It is probable that a mussel survey will be required for this project and a separate proposal is being prepared to address this issue. Additional studies or surveys may be required by the regulatory agencies. Davey Resource Group can either perform these studies or coordinate having them performed on your behalf if they are necessary.

The aforementioned costs are estimates only. Davey Resource Group will immediately notify you if, due to unforeseen circumstances, the fees will exceed these estimated costs. In this event, we will provide a revised cost estimate. We reserve the right to renegotiate our fees in the event that new guidance documents or changes in local, state, or federal regulations require altered approaches or additional studies.

Invoices will be prepared monthly until the project is complete. Davey's terms are net 30 days. All pricing in this proposal is valid for six months from the date of this proposal.

Davey Resource Group understands that obtaining the necessary permits is very important to you and the success and timing of your project; therefore, we will begin work immediately upon authorization to proceed. Please sign, date, and return to my attention the authorization statement provided on the following page.

I look forward to working with you on this project. If you have any questions or comments, please contact me at 330-673-5685, ext. 8065.

Sincerely,



Judith Mitchell, Senior Project Manager
Natural Resource Consulting



September 30, 2016

Corporate Headquarters
1500 North Mantua Street
P.O. Box 5193
Kent, Ohio 44240-5193
330.673.5685
Toll Free 1.800.828.8312
Fax 330.673.0860

Robert H. Greytak, P.E., Principal
CT Consultants, Inc.
8150 Sterling Court
Mentor, OH 44060

RE: *Ecological Consulting Services—Sewer Line installation in the Rocky River, Lakewood, Cuyahoga County, Ohio*

Dear Mr. Greytak:

Thank you for allowing Davey Resource Group, a division of The Davey Tree Expert Company, to provide you with this proposal for ecological consulting services in association with the proposed sewer line installation project. The project area is located within and adjacent to the Rocky River, just south of the terminus of W. Clifton Boulevard, extending south across the river, and adjacent to the wastewater treatment plant.

Because this stream has a watershed area greater than 10 square miles, a Phase I Mussel Survey and mussel relocation is required. This proposal provides you with a scope of services for the Mussel Survey, mussel relocation, and coordination with Ohio Department of Natural Resources (ODNR).

KEY PERSONNEL

Environmental Solutions & Innovations, Inc. (ESI) will perform the mussel survey and relocation efforts at the above referenced project at the Rocky River. These efforts will follow guidelines identified in the ODNR and U.S. Fish and Wildlife Service *Ohio Mussel Survey Protocol*, April 2016 (Protocol). John Spaeth, a state-approved malacologist with over 10 years of experience in aquatic science, will lead the team to ensure all work is done in compliance with the Protocol.

PHASE I MUSSEL SURVEY AND RELOCATION METHODOLOGY

All native mussels are protected within the state of Ohio and if avoidance options are not available, the mussels must be relocated from the area of direct impact (ADI) and adjacent buffer areas. Based on the Protocol, the area to be surveyed includes the area where any in stream activities will be needed (ADI), 25 meters (82 feet) downstream, 10 meters (33 feet) upstream, and extending the wetted width of the stream. The mussels will be relocated from the ADI, from 5 meters upstream, and from 5 meters downstream of the ADI. The mussels will be moved upstream of the ADI to a predetermined location. The relocation can be conducted during the same mobilization effort as the survey efforts

Robert H. Greytak, P.E.
CT Consultants, Inc.
October 30, 2016
Page 2.

COORDINATION AND REPORTING

As no mussels are to be moved without prior authorization from ODNR, a study plan will be prepared and submitted to ODNR to obtain approval for the survey and relocation plan. Following completion of the survey, a report will be prepared and submitted to ODNR that includes methods used to collect data and species under study. Coordination with the ODNR will be done to determine if additional surveys or coordination will be necessary. All reporting and ODNR coordination will also be submitted to both the U.S. Army Corps of Engineers and the Ohio Environmental Protection Agency.

ADDITIONAL SURVEY REQUIREMENTS

Although it is unlikely that federally listed mussel species will be found within the Rocky River, if live federally listed mussel species are encountered during the survey, the mussel relocations cannot be done and the USFWS will be notified within 24 hours or the next business day. Additional survey and relocation efforts relatively to federally listed mussel species are outside of the scope of this proposal.

MATERIALS REQUIRED

To complete the mussel survey and mussel relocation, we request a map delimiting the extent of in-stream work activities and the location of the pipeline be demarcated in the field.

TIME SCHEDULE

The survey season for mussel surveys is from May 1 to October 1. The mussel survey is valid for five years but the relocation is only valid for the same construction season that the survey was performed, or if implemented late in the summer, it is valid through June 15, the following year. As such, the timeframe for this survey will be decided upon determination of the construction schedule.

FEE SCHEDULE

The mussel survey, relocation, and ODNR coordination will be performed for a fixed fee of \$8,030. This proposal does not include fees for multiple mobilizations that could potentially occur due to inclement weather and/or deteriorating visibility conditions while onsite. Costs do not include additional agency consultation, additional survey requirements or production of a Biological Assessment if an endangered species is located.

TERMS AND CONDITIONS

Davey reserves the right to renegotiate our fees in the event that new guidance documents or changes in state or federal regulations require altered approaches or additional studies. This proposal does not include fees for any additional mussel surveys or relocations that may be required. Invoices will be prepared monthly until the project is complete. Davey's terms are net 30 days. All pricing in this proposal is valid for six months from the date of this proposal. Please sign, date, and return to my attention the authorization statement provided on the following page.

We look forward to working with you on this project. If you have any questions or comments, contact me at 330-673-5685, ext. 8065.

Sincerely,



Judith Mitchell, Senior Project Manager
Natural Resource Consulting



August 10, 2018

Mr. Joseph J. Beno, P.E.
Director of Public Works
City of Lakewood
12650 Detroit Avenue
Lakewood, Ohio 44107

*Re: Lakewood WWTP
Proposal for Water Main Extension*

Dear Mr. Beno:

In response to your request, CT Consultants, Inc. (CT) is pleased to submit this letter proposal to provide engineering for the extension of the WWTP water main from vicinity of the existing operations building to the site of the HRT in accordance with the following terms and conditions.

UNDERSTANDING OF PROJECT SCOPE

Currently there is no adequate water service to the site of the proposed HRT. The City is expected to upgrade the water service to the existing WWTP in the near future. The project consists of connecting a new 6-inch water main to the new service at the WWTP and constructing the new water main to north of the headworks building where it will connect to the HRT water distribution system (constructed under a separate contract). The route of the new water main is expected to parallel the existing West End aerial sewer.

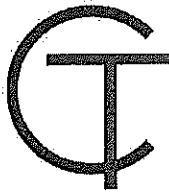
SCOPE OF SERVICES

Based on our understanding of the project scope, we propose to provide the following services:

1. Survey

- a. It is expected that existing drawings for the WWTP, West End aerial sewer, sanitary force main replacement, and HRT will be used for developing the necessary backgrounds for the water main alignment.
- b. Perform site reconnaissance and locate any deviances from existing records.
- c. Prepare an existing conditions drawing and base mapping.
- d. Geotechnical information from previous improvements at the WWTP and West End aerial sewer will be relied upon for existing subsurface site conditions.

Mr. Joseph J. Beno, P.E.
Director of Public Works
City of Lakewood
August 10, 2018
Page Two



2. 50% Submittal

- a. This submittal is to include location of existing utilities, plan and profile of the water main, terminal points and connection details, hydrant locations, draft technical specifications, and preliminary engineer's opinion of probable construction cost (EOPCC).
- b. A project meeting to review this submittal will be held prior to commencing the next phase.

3. PS&E Submittal

- a. This phase is to include providing full set of Bidding Documents including General Notes, SWPPP, pavement repair, water main details, final plan and profiles for the water main, technical specifications, prices-to-include, proposal form, and final EOPCC.
- b. A project meeting will be held to review final PS&E documents; CT to make adjustments determined from this meeting.
- c. If required, all "Prices-to-Include" and bid schedules will be set up to track OPWC funded items separately.
- d. Provide documents for Client use for electronic bidding in digital formats as required by the City.

4. Bidding Assistance

- a. CT will provide assistance during bidding including attending a prebid meeting.

INFORMATION/SERVICES PROVIDED BY THE CLIENT

The Client will provide information or services for each site, which will include:

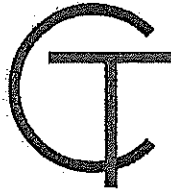
- The Client shall examine documents prepared by CT Consultants and render timely written responses.
- The Client shall give prompt notice to CT Consultants whenever the Client becomes aware of any development that affects the scope or timing of CT Consultants' services.

FEE AND BILLING

Fees will be billed on a monthly basis based on actual hours expended and hourly rates. Invoices are considered payable within 30 days of date of invoice. Our hourly not to exceed fee for this project is \$19,150 broken into the following tasks.

Survey:	\$ 2,400
50% and PSE design:	\$15,650
Bidding assistance:	\$ 1,100

Mr. Joseph J. Beno, P.E.
Director of Public Works
City of Lakewood
August 10, 2018
Page Three



CT may alter the distribution of compensation between individual services noted herein to be consistent with services actually rendered, but shall not exceed the total authorized amount unless approved in writing by the City.

CLOSURE

Please contact me if you have any questions regarding this proposal. We at CT look forward to the opportunity to provide you professional services on this project. Thank you for your consideration.

Respectfully,

CT CONSULTANTS, INC.

Robert H. Greytak, P.E.
Principal

M:\PROPOSAL\2018\Lakewood\1808 (Proposal For Water Main Ext) RHG.Docx



Letter of Transmittal

To: City of Lakewood
Department of Public Works
Division of Engineering & Construction
12650 Detroit Avenue
Lakewood, OH 44107

Date: 08/24/18 **Job No.**

Attn: Ms. Colleen A. Gillespie
Administrative Assistant

Re: Integrated Wet Weather Improvement Plan
– HRT Final Design

We are sending you: ☒ attached ☐ under separate cover via _____ the following items:
☐ shop drawings ☐ prints ☐ plans ☐ samples
☐ copy of letter ☐ specifications ☐ _____ change order(s)

copies	date	no.	description
One (1)			Addendum regarding the above subject project

These are transmitted as checked below:

☐ for approval ☒ for your use ☐ as requested ☐ for review & comment
☐ approved as submitted ☐ approved as noted ☐ returned for correction ☐ for bids due _____
☐ resubmit ☐ submit ☐ return corrected prints ☐ prints returned after loan to us
☐ copies for approval ☐ copies for distribution

Remarks: Please forward via e-mail a fully executed copy of the Addendum at your convenience.
Thank you.

Copy To: _____

Signed:

Richard J. Iafelice
Richard J. Iafelice, P.E., P.S.
Vice President

If enclosures are not as noted, kindly notify us at once.

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